

REMARKS

Summary of Examiner Interview

Applicant thanks Examiner Yuk C. Chow for the telephone interviews conducted on December 15, 2009 and December 23, 2009. Applicant was represented by Mr. Rex Huang and Mr. Indranil Sarkar. The amended claims and the cited prior art references were discussed. The Examiner agreed that the amended claims are not anticipated or made obvious by the prior art of record.

Advisory Action

In the advisory action dated 10/29/2009, the Examiner states¹:

Applicant's arguments regarding claims 1 and 17 are not persuasive, Koyama and Nanno's teaching reads on claimed invention in claims 1 and 17 based on the broadest reasonable interpretation of claims (i.e. converting the first number of display element drive levels (6-bit data,) into a second greater number of pixel grey levels (64-gray-scale as in Nanno, Fig. 13, Col. 12). Applicant argued that Nanno does not teach or suggest that for example that 22 original grey levels can be used to generate 64 different grey, however, this limitations are not in the claims.

Amended claim 1 recites "a column driver for providing signals to the pixels for driving the display elements, the column driver comprising digital to analogue converter circuitry providing at most 2^p display element drive levels from a p bit digital data signal, wherein p is a positive integer, wherein each pixel comprises means for receiving the display element drive levels and converting the display element drive levels into a number of pixel grey levels greater than 2^p ." Support for the amendments can be found at least in paragraphs [0047]-[0048] of the published application.

The Examiner agreed² that Koyama does not teach each pixel comprising means for receiving the first number of display element drive levels. Rather, Koyama describes a driving

¹ Advisory Action dated 10/29/2009, Continuation sheet.

² Office Action dated 7/23/2009.

circuit of a display in which source signal lines are driven in a time-division manner to decrease the number of digital to analog conversion circuits and reduce the size of the semiconductor display device³. Koyama describes reducing the number of digital to analog converters, but does not suggest, much less disclose, converting display element drive levels into a number of pixel grey levels greater than the number of display element drive levels produced by the digital to analog converter.

Nanno describes an area weighted method of displaying 2^n grey levels from n bit digital data⁴. The pixels of Nanno are themselves understood to be digital to analog converters since they receive n bit digital data and produce 2^n grey levels. However, Nanno fails to disclose or suggest converting display element drive levels into a number of pixel grey levels greater than the number of display element drive levels produced by the digital to analog converter.

Claim 1 is patentable over Koyama and Nanno for at least the above reasons. The Examiner, in the telephone interview conducted on December 23, 2009, agreed that the prior art of record does not disclose or suggest the features recited in amended claim 1.

Claim 17 is patentable for at least similar reasons as those applied to claim 1.

Allowable Subject Matter

In the Office action dated July 23, 2009, the Examiner stated:

Claims 10-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

³ Koyama, *Abstract*

⁴ Nanno, Col. 12, Lines 34-38.

Applicant acknowledges that the Examiner has indicated allowability of claims 10-12 and 19-20 if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant notes that other claims are also patentable for the reasons set forth above.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Any circumstance in which the applicant has addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner. Any circumstance in which the applicant has made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims. Any circumstance in which the applicant has amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: December 29, 2009 _____

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